

Appendix Table 2. Profile Descriptions for the Dal-Tex, Cannelton, and Hobet -21 Mine Sites

| Site ID & Soil Age | Horizon | Depth (cm) | Mottling ¹ | Moist Color ² | Texture ³ | Structure ⁴ | Moist ⁵ Consistence | pH | Boundary ⁶ | Roots ⁷ | Rock ⁸ Fragments |
|--|---------|------------|-----------------------|---|----------------------|--|--------------------------------|----|-----------------------|--------------------|-----------------------------|
| Dal-Tex | | | | | | | | | | | |
| 1976-01 23-years-old (2% slope) | Oi | 0--2 | | | | | | | | | |
| | Oe | 2--3 | | | | | | | aw | | |
| | A | 3--7 | | 2.5Y 5/3 | SIL | 2, f, sbk breaking to 2, f-m, gr | fr | cw | many, vf-c | 20% SS | |
| | AC | 7-22 | | 2.5Y 5/3, 10YR 5/6, 10YR 6/2, N 2.5/0 | SICL | 1, m-c, sbk | fr | cw | com, vf-c | 30% SS, MS, C | |
| | C | 22--65 | | 7.5YR 5/8, 10YR 5/6, 2.5Y 7/4, 10YR 6/2 N 2.5/0 | SICL | 0, ma | fr | aw | few, vf-f | 35% SS, MS, C | |
| | 2Cr | 65--79 | | | | Gray shale and mudstone | | aw | | | |
| | 2R | 79+ | | | | Sandstone | | | | | |
| 1976-02 23-years-old (30% slope) | Oi | 0--3 | | | | | | | | | |
| | Oe | 3--6 | | | | | | aw | | | |
| | A | 6-13 | | 10YR 4/2, 10YR 5/3 | L | 1, m, sbk breaking to 1, f-m, gr | fr | cw | many, vf-m | 4% SS, MS, C | |
| | AC | 13-31 | | 10YR 4/2 | L | 1, m-c, sbk | fr | cw | few, vf-m | 50% SS, MS, C | |
| | C/B | 31--75 | | 2.5Y 5/3 | LS | 80% 0, ma 20% 1, f, sbk | vfr | gw | com, vf-m | 65% SS, MS, C | |
| | C | 75--105+ | | 2.5Y 5/2 | LS | 0, ma | vfr | aw | few vf-m | 75% SS | |
| | 2R | 79+ | | | | Sandstone | | | | | |

Appendix Table 2. Continued

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| Site ID & Soil Age | Horizon | Depth (cm) | Mottling ¹ | Moist Color ² | Texture ³ | Structure ⁴ | Moist ⁵ Consistence | pH | Boundary ⁶ | Roots ⁷ | Rock ⁸ Fragments |
|--|---------|------------|-----------------------|--------------------------|----------------------|--------------------------------------|--------------------------------|----|-----------------------|--------------------|-----------------------------|
| 1988-02 11-years-old (44% slope) | Oi | 0--3 | Root mat | 10YR 3/3 | | | | as | | many, vf-f | |
| | A | 3-12 | | 10YR 4/6 | L | 1, m, sbk breaking to 2, m, gr | fr | cw | com, vf-m | 30% | SS |
| | AC | 12-41 | | 10YR 4/6 | SL | 1, f-m, sbk | fr | aw | few, vf-m | 35% | SS, C |
| | C1 | 41-75 | | 10YR 4/2 | SL | 90% 0, ma 10% 2, f, sbk | vfr | gw | com, vf-m | 70% | SS, MS, C |
| | C2 | 75-125+ | | 10YR 4/2 | SL | 0, ma | vfr | | few, vf-f | 70% | SS, MS, C |
| 1988-03 11-years-old (7% slope) | A | 0-3 | | 10YR 4/2 | SL | 1-2, m, sbk | vfr | aw | many, vf-f | 20% | SS |
| | AC | 3-16 | | 10YR 4/1 | SL | 1, m, sbk | fr | cw | com, vf-f | 50% | SS, C |
| | C1 | 16-49 | | 2.5Y 4/1 | SL | 0, ma | fr | aw | few, vf | 60% | SS, C |
| | C2 | 49-91 | | 10YR 4/3 | SL | 0, ma | fr | cw | few, vf | 50% | SS, C |
| | C3 | 91-125+ | com, f, 10YR 5/6 | 10YR 4/4 | CL | | fr | | vfew, vf | 50% | SS, C |

Appendix Table 2. Continued

| Site ID & Soil Age | Horizon | Depth (cm) | Mottling ¹ | Moist Color ² | Texture ³ | Structure ⁴ | Moist ⁵ Consistence | pH | Boundary ⁶ | Roots ⁷ | Rock ⁸ Fragments |
|--|---------|------------|-----------------------|--------------------------|----------------------|--|--|----|-----------------------|--------------------|--------------------------------|
| | | | | | | | | | | | |
| 1988-04 11-years-old (34% slope) | Oe | 0--2 | | | | | Root mat-partially decomposed leaves and roots | | aw | many, vf-m | 30% SS |
| | A | 2--10 | | 10YR 4/3 | SL | 2, f-m, gr | vfr | | cw | many, vf-m | 50% SS |
| | C1 | 10--24 | | 10YR 5/4 | SL/LS | 95% 0, ma 5% 1, m, sbk breaking to 1, m, gr | fr | | cw | com, vf-m | 60% SS, C |
| | C2 | 24--59 | | 10YR 5/4, 10YR 5/8 | SL/SCL | 95% 0, ma 5% 1, m, sbk | fr | | cw | few, vf-m | SS, C |
| | C3 | 59--114 | | 10YR 4/6, 10YR 5/6 | L | 0, ma | fi in place fr in hand | | aw | vfew, vf-m | SS, C SS, C |
| | C4 | 114--125+ | com, f, 10YR 5/6 | 10YR 4/1 | L/CL | 0, ma | fr | | | | 60% SS, C |
| 1988-05 11-years-old (8% slope) | A | 0--9 | | 10YR 3/3 | SL | 1, m, sbk breaking to 1, f, gr | vfr | | cw | many, vf-f | 30% SS |
| | C1 | 9--22 | | 10YR 4/1 | SL | 0, ma | fr | | cw | com, vf-f | 55% SS, MS, C |
| | C2 | 22--45 | | 2.5Y 4/2 | SL | 0, ma | fr | | gw | few, f-vf | 70% |
| | C3 | 45--79 | | 2.5Y 4/1 | LS | 0, ma | fr | | gw | few, vf-f | 55% SS, MS, C |
| | C4 | 79--135+ | | 2.5Y 4/1 | SL | 0, ma | fr | | | vfew, vf | 50% SS, MS, C |

Appendix Table 2. Continued

| Site ID & Soil Age | Horizon | Depth (cm) | Mottling ¹ | Moist Color ² | Texture ³ | Structure ⁴ | Moist ⁵ Consistency | pH | Boundary ⁶ | Roots ⁷ | Rock ⁸ Fragments |
|--|------------------------------|------------|-----------------------|--------------------------|----------------------|---|--------------------------------|-----|-----------------------|--------------------|-----------------------------|
| 1988-06 11-years-old (48% slope) | A | 0--7 | | 10YR 3/3, 10YR 4/3 | L | 2, f-m, gr | vfr | cw | many, vf-f | 30% | SS |
| | AC | 7-36 | | 10YR 4/3 | L | 1-2, m-c, sbk | fr | gw | com, vf-f | 60% | SS, C |
| | CB | 36--72 | few, m-c, 7.5YR 5/6 | 10YR 4/3 | SL | 1, c, sbk | fr | cw | few, vf-f | 75% | SS, C |
| | C | 72--150+ | | 2.5Y 5/3 | SL | 0, ma | fi in place fr in hand | gw | vfew, vf-f | 50% | SS, C |
| 1992-01 7-years-old (0.5% slope) | A | 0--8 | | 10YR 3/3 | SL | 1, m, sbk breaking to 2, vf-f, gr | vfr | 7.5 | cw | many, vf-f | 25% SS |
| | C1/B | 8-30 | | 2.5Y 4/3 | LS | 75%, 0, ma 25%, 1, f-m, sbk | fr | 8.0 | gw | com, vf-f | 60% SS, MS, C |
| | C2/B | 30--77 | | 10YR 4/2 | LS | 90%, 0, ma 10%, 1, f, sbk | fr | 8.0 | cw | few, vf-f | 70% SS, MS, C |
| | C | 77--125+ | com, f, 10YR 6/8 | 10YR 5/4 | LS | 0, ma | vfr | 8 | | few, vf-f | 75% SS, MS, C |
| 1992-02 7-years-old (27% slope) | Oi | 0--2 | | Leaf and stem litter | | | | | | | |
| | A | 2--8 | | 10YR 4/1 | SL | 2, f-m, gr | vfr | cw | many, vf-f | 25% SS | |
| | AC | 8-24 | | 10YR 4/1 | SL | 1, m, sbk | fr | ci | com, vf-f | 40% SS, MS, C | |
| | C1/B | 24--60 | | 10YR 4/2, 10YR 4/3 | SL | 90% 0, ma 10% 1, m, sbk | fi in place fr in hand | gw | com, vf-f | 50% SS, C | |
| | C2/B | 60-107 | | 10YR 4/2 | SL/LS | 90% 0, ma 10% 1, m, sbk | fi in place fr in hand | gw | few, vf-f | 50% SS, MS, C | |
| | C | 107-207+ | | 10YR 4/2 | SL/LS | 95% 0, ma 5% 1, m, sbk | vfr | | few, vf-f | 50% SS, MS, C | |
| | (roots continue past 207 cm) | | | | | | | | | | |

Appendix Table 2. Continued

| Site ID & | Horizon | Depth | Mottling ¹ | Moist Color ² | Texture ³ | Structure ⁴ | Moist ⁵ | pH | Boundary ⁶ | Roots ⁷ | Rock ⁸ |
|-----------|---------|-------|-----------------------|--------------------------|----------------------|------------------------|--------------------|----|-----------------------|--------------------|-------------------|
|-----------|---------|-------|-----------------------|--------------------------|----------------------|------------------------|--------------------|----|-----------------------|--------------------|-------------------|

| Soil Age | (cm) | | Consistence | | | | | Fragments | |
|---------------------------------------|-------------|-----------|--------------------|--------------------|-------------------------------------|--|---------------------------|------------------|------------------------|
| 1992-03 7-years-old (1% slope) | Oe | 0--2 | 10YR 4/1 | | Partially decomposed organic matter | | aw | | |
| | A | 2--6 | | | L | 2, f, sbk breaking to 1, f-m, sbk | vfr | cw | many, vf-f SS, MS |
| | AC | 6--24 | few, c, 7.5 YR 5/6 | 10YR 3/1 | L | 1, c, sbk 2, m, sbk-- around roots | fr | aw | com, vf-f MS, SS |
| | C/B | 24--48 | | 2.5Y 5/3 | SL | 60% 0, ma 40%, 2, f-m, sbk | fr | gw | com, vf-f SS, C |
| | C1 | 48--66 | | 10YR 5/3 | SL | 95%, 0, ma 5%, 1, m, sbk | fi in place fr in hand | gw | few, vf-f SS, MS, C |
| | C2 | 66--97 | | 10YR 5/3 | SL | 0, ma | fr | gw | few, vf-m SS, MS, C |
| | C3 | 97--160+ | | 10YR 5/3 | SL | 0, ma | fr | gw | vfew, f-m SS, MS |
| | A | 0--7 | | 10YR 3/1 | SL/L | 2, m, gr | vfr | 4.2 | cw SS |
| 1992-04 7-years-old (33% slope) | Bw | 7--21 | com, f, 10YR 5/6 | 10YR 4/2, 10YR 5/3 | SL | 1, m, sbk | fr | 4.2 | com, vf-m SS |
| | C1 | 21--42 | | 2.5Y 5/3 | SL/LS | 0, ma | fi in place fr in hand | 4.2 | gw SS, MS, C |
| | C2 | 42--101 | | 2.5Y 5/3 | SL/LS | 0, ma | fi in place fr in hand | 4.2 | cw SS, MS, C |
| | C3 | 101--160+ | | 2.5Y 5/3 | SL/LS | 0, ma | fr | none | 56% SS, MS, C |

Appendix Table 2. Continued

| Site ID & Soil Age | Horizon | Depth (cm) | Mottling ¹ | Moist Color ² | Texture ³ | Structure ⁴ | Moist ⁵ Consistence | pH | Boundary ⁶ | Roots ⁷ | Rock ⁸ Fragments |
|-----------------------|---------|---------------|-----------------------|--------------------------|----------------------|------------------------|-----------------------------------|----|-----------------------|--------------------|--------------------------------|
|-----------------------|---------|---------------|-----------------------|--------------------------|----------------------|------------------------|-----------------------------------|----|-----------------------|--------------------|--------------------------------|

| | | | | | | | | | | |
|---------------------------------------|--|----------|---|-------|---|-------|-----|----|------------|------------------|
| 1992-05 7-years-old (1% slope) | Oe | 0--2 | Partially decomposed leaf and stem litter | | | | | aw | 35% | |
| | A | 2--6 | 2.5Y 3/2 | SL | 1, f-m, gr | vfr | 6.0 | cw | many, vf-m | SS |
| | AC | 6--24 | 2.5Y 4/1, 2.5Y 3/1 | SL | 1-2, f-m, sbk | fr | 6.5 | cw | com, vf-m | SS |
| | C1/B | 24--48 | 2.5Y 3/1 | L | 60%, 0, ma 40%, 1, f, sbk breaking to 1, f, gr | fr | 7.0 | gw | com, vf-m | 50% SS, MS, C |
| | C2/B | 48--66 | 2.5Y 3/1 | L | 85%, 0, ma 15%, 1, f, sbk breaking to 1, f, gr | vfr/l | 6.5 | | few, vf-m | 60% SS, MS, C |
| | (Roots continue past lowest horizon described) | | | | | | | | | |
| 1992-06 7-years-old (39% slope) | A1 | 0--10 | 10YR 3/2, 10YR 4/2 | SL | 2, f-m, gr | vfr | 4.2 | cw | many, vf-m | 30% SS, C |
| | A2 | 10--19 | 10YR 5/3 | SL | 1, m, gr | vfr | | cw | many, vf-m | 35% SS |
| | AC | 19--32 | 10YR 6/4 | SL | 1, m, sbk breaking to 1, m, gr | fr | 4.2 | cw | com, vf-m | 40% SS |
| | C1 | 32--73 | 10YR 5/4 | LS/SL | 75%, 0, ma 25%, 1, m, sbk | vfr | 4.2 | gw | few, vf-m | 50% SS |
| | C2 | 73--110+ | 10YR 5/4 | SL | 0, ma | vfr | 4.5 | | vfew, vf-f | 50% |

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| Site ID & Soil Age | Horizon | Depth (cm) | Mottling ¹ | Moist Color ² | Texture ³ | Structure ⁴ | Moist ⁵ Consistence | pH | Boundary ⁶ | Roots ⁷ | Rock ⁸ Fragments |
|--------------------|---------|------------|-----------------------|--------------------------|----------------------|------------------------|--------------------------------|----|-----------------------|--------------------|-----------------------------|
| 1997-01 | Oi | 0--1 | | | Grass stems | | | | | | |

| | | | | | | | | | | |
|---------------------------------------|----|-----------|--|------------------------|------|------------------------------|---------------------------|----|------------|------------------|
| 2-years-old (15% slope) | A | 1--4 | | 10YR 4/3 | SL | 1, f, gr | vfr | cw | many, vf-f | 40% |
| | AC | 4-10 | | 10YR 4/3 | SL | 1, m, sbk | fr | cw | com, vr-f | SS, MS, C 40% |
| | C1 | 10--41 | com, f-m, 2.5Y 6/6, N 2.5/0 | 2.5Y 4/2 | L/SL | 0, ma | vfr | gw | few, vf-f | SS, MS, C 50% |
| | C2 | 10--92 | com, m, N 2.5/0, 10YR 5/6, 7.5YR 5/8 2.5YR 5/8, 2.5Y 6/6 10YR 6/6 | 2.5Y 4/3 | SL | 0, ma | fr | aw | few, vf-f | SS, C, MS 60% |
| | C3 | 92--150+ | few, f, 2.5Y 7/1 | 7.5YR 5/8 | LS | 0, ma | fi in place fr in hand | | | 90% SS |
| | Oi | 0--2 | | Grass and legume stems | | | | | | |
| | A | 2--6 | | 2.5Y 3/2 | SL | 1, f-m, gr | vfr | cw | com, vf-m | 30% SS, MS, C |
| 1997-02 2-years-old (43% slope) | C1 | 6--51 | com, f-m, 10YR 5/6, N 2.5/0, 10YR 4/4 | 2.5Y 3/2 | SL | 90%, 0, ma 10%, 1, f, sbk | fr | gi | few, vf-m | 50% SS, MS, C |
| | C2 | 51--104 | com, f, N 2.5/0, 10YR 5/6 | 10YR 5/2 | L/SL | 0, ma | fi in place | ci | few, vf-f | 75% SS, MS, C |
| | C3 | 104--140+ | few, m, N 2.5/0 | 10YR 3/2, 10YR 4/2 | SL | 0, ma | fr | | vfew, vf-f | 40% SS, MS, C |

Appendix Table 2. Continued

| Site ID & Soil Age | Horizon | Depth (cm) | Mottling ¹ | Moist Color ² | Texture ³ | Structure ⁴ | Moist ⁵ Consistence | pH | Boundary ⁶ | Roots ⁷ | Rock ⁸ Fragments |
|------------------------|---------|---------------|-----------------------|------------------------------|----------------------|------------------------|-----------------------------------|----|-----------------------|--------------------|--------------------------------|
| 1997-03 2-years-old | Oi | 0--1 | | Grass and legume stem litter | | | | | | | |
| | A | 1--7 | | 2.5Y 3/2 | L | 1, m, sbk | fr | cw | many, vf-m | | 20% |

| | | | | | | | | | | |
|---------------------------------------|------------|----------|---|--------------------|-------------------------|--|-----|----|-------------------------------|-----------|
| (10% slope) | | | | | | | | | | SS, MS, C |
| | | | | | breaking to 2, m, gr | | | | | |
| | AC | 7-13 | | 2.5Y 3/2 | L | 1, m, sbk | fr | gw | com, vf-m | 20% |
| | C1 | 13-56 | few, m-c, 10YR 5/6 | 2.5Y 3/1 | L | 0, ma | fi | aw | few, vf-f | 35% |
| | C2 | 56-82 | many, f-m, 2.5Y 6/6, N 2.5/0, 7.5YR 5/6, 10YR 6/3 | 10YR 6/6 | L | 0, ma | fr | aw | few, vf-f | 30% |
| | 2Cr | 82-92+ | | | Soft grey mudstone | | | | | SS, MS, C |
| 1997-04 2-years-old (44% slope) | Oi | 0--1 | | | Grass and legume stems | | | | | |
| | A | 1--7 | | 2.5Y 3/2 | SL | 1-2, f, gr | vfr | cw | many, vf-f | 25% |
| | C1 | 7-37 | com, f, 10YR 6/1, 10YR 6/6 | 2.5Y 3/2, 2.5Y 4/2 | CL | 90% 0, ma, with pockets of 1, pl 10% 1, f, sbk | fi | gw | many, vf-m | 45% |
| | C2 | 37-120 | few, m, N 2.5/0 | 2.5Y 3/2, 2.5Y 5/3 | CL | 0, ma | fi | cw | few, vf-m at rock faces | 75% |
| | C3 | 120-152+ | com, f, 10YR 4/1, 10YR 3/1 | 10YR 5/6, 2.5Y 5/4 | SL | 0, ma | fr | | vfew, vf | 50% |
| | | | | | | | | | | SS, MS, C |

Appendix Table 2. Continued

| Site ID & Soil Age | Horizon | Depth (cm) | Mottling ¹ | Moist Color ² | Texture ³ | Structure ⁴ | Moist ⁵ Consistence | pH | Boundary ⁶ | Roots ⁷ | Rock ⁸ Fragments |
|--------------------------------------|-----------|---------------|-----------------------|--------------------------|------------------------------|------------------------|-----------------------------------|----|-----------------------|--------------------|--------------------------------|
| 1997-05 2-years-old (1% slope) | Oi | 0--1 | | | Grass and legume stem litter | | | | | | |
| | A | 1--5 | | 10YR 3/2 | SL | 1, m, sbk and | fr | cw | many, vf-f | 25% | SS, MS, C |

| | | | | | | | | | | |
|---------------------------------------|------------|----------|--|--------------------|------------------------------|--------------------------------------|-----|----|------------|-----------|
| | AC | 5--22 | few, f-m, N 2.5/0, 2.5 6/4 | 2.5Y 4/2 | SL | 1, f-m, sbk | fi | cw | com, vf-f | 35% |
| | C | 22--64 | many, f-m, 2.5Y 6/4, 7.5YR 5/6, N 2.5/0 | 2.5Y 4/3, 2.5Y 4/1 | CL | 0, ma | fi | aw | few, vf-m | 40% |
| | 2Cr | 64-91+ | | | Soft grey mudstone | | | | | SS, MS, C |
| 1997-06 2-years-old (53% slope) | Oi | 0--2 | | | Grass and legume stem litter | | | | | |
| | A | 2--8 | | 10YR 3/3 | SL | 1, f, gr | fr | cw | many, vf-f | 30% |
| | AC | 8--14 | | 10YR4/2, 10YR 5/6 | SL/L | 1, f-m, sbk | fr | aw | many, vf-f | 30% |
| | C/B | 14--29 | com, c, 10YR 5/6 | 2.5Y 4/3 | SL | 75% 0, ma 25% 1, f, sbk | fr | gw | many, vf-m | 70% |
| | C | 29--120+ | few, m, N 2.5/0 | 2.5Y 5/3, 10YR 6/1 | SL | 0, ma | fi | | few, vf-m | 70% |
| | | | | | | | | | | SS, MS, C |
| Native-01 (31% slope) | Oi | 4--0 | | | Leaf and twig litter | | | | | |
| | A | 0--9 | | 10YR 2/2 | SIL | 2, f, gr | vfr | cw | many, vf-c | 5% |
| | BA | 9--18 | | 10YR 4/2 | SIL | 1, m, sbk breaking to 1, m, gr | vfr | cw | many, f-c | 10% SS |
| | Bw1 | 18--43 | | 10YR 6/4 | SIL | 2, m-c, sbk | fr | gw | com, f-m | 25% SH |
| | Bw2 | 43--67 | | 10YR 5/6 | SIL | 2, f-m, sbk | fr | ab | few, f-m | 40% SS |
| | R | 67--104+ | | | Shale | | | | | |

Appendix Table 2. Continued

| Site ID & Soil Age | Horizon | Depth (cm) | Mottling ¹ | Moist Color ² | Texture ³ | Structure ⁴ | Moist ⁵ Consistence | pH | Boundary ⁶ | Roots ⁷ | Rock ⁸ Fragments |
|--------------------------|------------|---------------|-----------------------|--------------------------|---------------------------|------------------------|-----------------------------------|----|-----------------------|--------------------|--------------------------------|
| Native-02 (58% slope) | Oi | 5--0 | | | Leaf and twig litter | | | | | | |
| | OA | 0--2 | | | Decomposed organic matter | | | | | | |
| | A/E | 2--5 | | 10YR 3/1, 10YR 4/2 | SL | 1, f, gr | vfr | aw | many, vf-m | | 20% SS |

| | | | | | | | | | | | |
|---------------------------------------|-----------|---------|--|-------|------------------------------|-------|-----|------------|-------------------------------|--|--|
| | BA | 5--23 | 10YR 5/6 | SL/LS | 1, f, sbk and 1, f, gr | vfr/l | cw | many, vf-c | 40% SS | | |
| | Bw | 23--59 | 10YR 6/6 | SL/LS | 1, m, sbk | fr | gw | com, f-vc | 45% SS | | |
| | BC | 59--88 | 10YR 6/6 | SL/LS | 1, m-c, sbk | fr | aw | com, f-vc | 55 SS | | |
| | R | 88-107+ | Fractured sandstone, with few roots in fractures | | | | | | | | |
| Cannelton | | | | | | | | | | | |
| 1970-01 30-years-old (2% slope) | Oi | 0--1 | | | | | | | | | |
| | A | 1--4 | 10YR 3/3 | SIL | 2, f, gr | vfr | 5.3 | aw | many, vf-m | | |
| | AC | 4--13 | 10YR 6/3, 7.5YR 5/6 10YR 6/1, N 2/0 | SICL | 1, m, sbk | fr | 4.7 | cw | com, f-m | | |
| | C | 13--43+ | 7.5 YR 6/6, 7.5YR 7/1 10YR 6/1, N 2/0 10YR 6/3 | SICL | 0, ma and 1, t, pl | fi | 5.0 | few, vf-f | MS, SS, C 25% MS, SS, C | | |
| 1970-02 30-years-old (2% slope) | Oi | 0--1 | | | | | | | | | |
| | A | 1--4 | 10YR 4/3 | L | 2, f-c, gr | vfr | 6.5 | aw | many, vf-m | | |
| | AC | 4--46 | 2Y 5/3, 10YR 5/6, N 2/0, 7.5YR 4/6 | L | 1, f-m, sbk | fr | 7.0 | cw | com, vf-m | | |
| | C | 16--40+ | 2Y 5/3, 10YR 5/6, N 2/0, 7.5YR 4/6 | SL | 0, ma | | 8.0 | vfew, m | 85% | | |

Appendix Table 2. Continued

| Site ID & Soil Age | Horizon | Depth (cm) | Mottling ¹ | Moist Color ² | Texture ³ | Structure ⁴ | Moist ⁵ Consistence | pH | Boundary ⁶ | Roots ⁷ | Rock ⁸ Fragments |
|---------------------------------------|-----------|------------|-----------------------|---|----------------------|--|--------------------------------|-----|-----------------------|--------------------|-----------------------------|
| 1970-03 30-years-old (2% slope) | Oi | 0--1 | | | | | | | | | |
| | A | 1--3 | | 10YR 3/2 | L | 2, f-m, gr | vfr | 6.5 | cw | many, vf-m | 5% |
| | AC | 3--15 | | N 2/0, 7.5YR 4/6, 10YR 5/2, 10YR 6/1, 7.5YR 6/8 | SICL | 2, m, sbk breaking to 2, f-c, gr | fr | 7.0 | gw | com, vf-m | 25% |

| | | | | | | | | | | |
|--|-----------|---------|--|------|--|-----|-----|----|------------|-----------|
| | C | 15--45+ | N 2/0, 7.5YR 4/6, 10YR 5/6, 10YR 5/8, 10YR 5/2 | | 0, ma | fi | 8.0 | | few, f-m | 50% |
| 1984-01 16-years-old (10% slope) | Oi | 0--3 | | | | | | | | |
| | A | 3--7 | 10YR 4/2 | SL | 1, f, gr | vfr | 7.5 | cw | com, vf-f | 0 |
| | AC | 7-14 | 2.5Y 5/2 | LS | 1, f, sbk | vfr | 8.0 | cw | few, vf-f | 60% |
| | C | 14-50+ | 2.5Y 5.2 | LS | 0, ma | l | 8.0 | | vfew, vf | 70% |
| | | | | | | | | | | SS, C, MS |
| 1984-02 16-years-old (5% slope) | Oi | 0--2 | | | | | | | | |
| | A | 2--8 | 2.5Y 4/2 | SICL | 2, m-c, gr breaking to 2, m, sbk | fr | 7.0 | cw | many, vf-m | 35% |
| | AC | 8-18 | 2.5YR 5/2, 10YR 5/6 | SICL | 1--2,c.gr breaking to 2, f, sbk | fi | 8.0 | cw | com, f-m | 50% |
| | C | 18-45+ | 2Y 5/2, 10YR 5/6 | CL | 0, ma | | 8.0 | | vfew, f | 75% |
| | | | | | | | | | | SS, SH |
| 1984-03 16-years-old (5% slope) | Oi | 0--2 | | | | | | | | |
| | A | 2--7 | 2.5Y 4/2 | SIL | 2, f-m, gr | fr | 7.0 | cw | many, f-m | 35% |
| | AC | 7-17 | 2.5Y 4/1, 7.5YR 5/8, N 2/0 | L | 1, f-m, sbk | fi | 8.0 | aw | few, f-m | 65% |
| | C | 17-40+ | 10YR 4/1, N 2/0 | SL | l | | 8.0 | | vfew, f-m | 85% |

Appendix Table 2. Continued

| Site ID & Soil Age | Horizon | Depth (cm) | Mottling ¹ | Moist Color ² | Texture ³ | Structure ⁴ | Moist ⁵ Consistence | pH | Boundary ⁶ | Roots ⁷ | Rock ⁸ Fragments |
|--------------------------|-----------|------------|-----------------------|--------------------------|----------------------|--|-----------------------------------|-----|-----------------------|--------------------|--------------------------------|
| Native-01 (70% slope) | Oi | 0--5 | | | | | | | | | |
| | A | 5-17 | | 10YR 4/3 | SIL | 2, f-m, gr | vfr | 5.5 | | many, f-m | 5% |
| | Bw1 | 17-33 | | 10YR 4/4 | SIL | 1, m, sbk breaking to 2, f-c, gr | fr | 5.0 | | many, m-c | 15% |
| | Bw2 | 33-50+ | | 10YR 5/6 | SIL | 1, m, sbk | fr | 5.0 | | few, m-c | 30% |

| | | | | | | | | | | |
|--------------------------|------------|---------|----------|-----|--|----|-----|----|------------|-----|
| | | | | | | | | | | |
| Native-02 (45% slope) | Oe | 0--4 | | | | | | | | |
| | A | 4--12 | 10YR 3/3 | SIL | 2, f-m, gr | fr | 5.5 | aw | many, vf-f | 5% |
| | AB | 12--18 | 10YR 3/4 | SIL | 1, f, sbk | fr | 5.5 | cw | com, vf-f | 5% |
| | | | | | breaking to 2, f-c, gr | | | | | |
| | Bw1 | 18--31 | 10YR 3/4 | SIL | 2, m, sbk | fr | 5.5 | cw | com, vf-c | 10% |
| | | | | | breaking to 2, f-c, gr | | | | | |
| | Bw2 | 31--45+ | 10YR 4/4 | SIL | 2, m-c, sbk | fr | 5.5 | | few, m-c | 10% |
| | | | | | breaking to 2, f-c, gr | | | | | |
| | | | | | | | | | | |
| | | | | | (Very few discontinuous clay films in Bw1 and few discontinuous clay films in Bw1) | | | | | |
| Native-03 (67% slope) | Qi | 0--3 | | | | | | | | |
| | A | 3--16 | 10YR 4/2 | SIL | 1, f-m, sbk | fr | 5.5 | aw | many, vf-c | 25% |
| | | | | | breaking to 2, f-m, gr | | | | | |
| | Bw1 | 16--29 | 10YR 5/4 | SIL | 2, f-m, sbk | fr | 5.5 | cw | few, f-c | 40% |
| | Bw2 | 29--45+ | 10YR 5/6 | SIL | 2, m, sbk | fr | 5.5 | | vfew, f-m | 60% |
| | | | | | (few discontinuous clay films in lower horizons) | | | | | |

Appendix Table 2. Continued

| Site ID & Soil Age | Horizon | Depth (cm) | Mottling ¹ | Moist Color ² | Texture ³ | Structure ⁴ | Moist ⁵ Consistence | pH | Boundary ⁶ | Roots ⁷ | Rock ⁸ Fragments |
|--|-----------|------------|-----------------------|--------------------------|----------------------|-------------------------|--------------------------------|----|-----------------------|--------------------|-----------------------------|
| Hobet-21 | | | | | | | | | | | |
| 1983-01 17-years-old (12% slope) | Qi | 0--2 | | | | Leaf and twig litter | | | | | |
| | A | 2--4 | | 2.5Y 3/2 | SIL/L | 1, f, sbk | | | cw | many, vf-c | 20% SS |
| | | | | | | breaking to 2, m, gr | | | | | |
| | AC | 4--16 | | 2.5Y 5/2 | L | 1, f, sbk | fr | | cw | many, vf-m | 50% SS,C |

| | | | | | | | | | |
|--|----|---------|------------------------------|-------------|-------------|-----------------------------|----|------------|-------|
| | C | 16--45+ | 5Y 3/1 | SL | 0, ma | fi | | few, vf-f | 80% |
| 1983-02 17-years-old (28% slope) | Oi | 0--2 | | | | | | | SS, C |
| | A | 2--5 | 7.5YR 3/1 | SL | 2, c, gr | vfr | cw | many, vf-m | 20% |
| | AC | 5--19 | 2.5Y 3/2 | CL | 1, f, sbk | fr | cw | com, vf-c | 45% |
| | C | 19--45+ | 2.5Y 3/2 | | 0, ma | fi | | few, vf-f | 75% |
| 1983-03 17-years-old (3% slope) | Oi | 0--1 | | | | | | | SS, C |
| | A | 1--5 | 10YR 3/3 | SIL/L | 2, f-m, gr | vfr | aw | many, vf-m | 15% |
| | AC | 5--18 | 10YR 5/8, 10YR 5/1 | CL | 1, f, sbk | fr | cw | many, vf-m | 50% |
| | C | 18--45+ | 2.5Y 3/2 | L | 0, ma | fi, in place, fr in hand | | few, vf-f | 80% |
| 1992-01 8-years-old (3% slope) | Oi | 0--2 | | Ground moss | | | | | |
| | A | 2--5 | 10YR 3/2, 10YR 4/2 | SL | 2, vf-f, gr | vfr | aw | many, vf-m | |
| | Bw | 5--26 | 10YR 4/3, 10YR 6/4, N 2/0 | CL | 2, f-m, sbk | fr | cw | many, vf-m | 45% |
| | C | 26--50+ | 2.5Y 3/2 | SCL | 0, ma | fi | | com, vf-f | 55% |
| | | | | | | | | | SS, C |

Appendix Table 2. Continued

| Site ID & Soil Age | Horizon | Depth (cm) | Mottling ¹ | Moist Color ² | Texture ³ | Structure ⁴ | Moist ⁵ Consistence | pH | Boundary ⁶ | Roots ⁷ | Rock ⁸ Fragments |
|--------------------------------------|---------|------------|-----------------------|-------------------------------|-----------------------|------------------------|--------------------------------|----|-----------------------|--------------------|-----------------------------|
| 1992-02 8-years-old (5% slope) | Oi | 0--2 | | | Mat of moss and roots | | | | | | |
| | A | 2--6 | | 2.5Y 3/3 | L | 1, f-m, gr | vfr | aw | many, vf-m | 20% | SS |
| | AC | 6--28 | | 2.5Y 5/3, 10YR 6/6 N 2/0 | SL | 1, f-m, sbk | fr | cw | many, vf-m | 65% | SS |
| | C | 28--45+ | | 2.5Y 5/3, 7.5YR 5/6, N 2/0 | SL | 0, ma | fi | | few, vf-f | 65% | SS |

| | | | | | | | | | | |
|--------------------------------------|--|--------|--------------------------|-----|--------------------------------------|-----|-----|------------|-----------|-----------|
| 1992-03 8-years-old (5% slope) | Oi | 0--1 | Leaf litter from forages | | | | | | 25% SS | |
| | A | 1--5 | 2.5Y 4/2 | L | 1, f-m, gr | vfr | cw | many, vf-m | | |
| | AC | 5--11 | 2.5Y 4/2 | SL | 1, f, sbk breaking to 2, m, gr | vfr | cw | many, vf-m | | |
| | C | 11-45+ | 2.5Y 4/2 | SL | 0, ma | fr | | few, vf-f | 80% SS | |
| Native-01 (45% slope) | Oi | 0--3 | Leaf and twig litter | | | | | | 5% SS | |
| | Oe | 3--4 | | | | | | | | |
| | A | 4--13 | 10YR 4/2 | SL | 2, f-m, gr | vfr | 5.5 | aw | com, vf-m | |
| | E | 13--27 | 10YR 6/4 | SL | 1, m, sbk | fr | 5.5 | cw | com, vf-c | |
| | Bt1 | 27--44 | 10YR 5/6 | SCL | 2, m, sbk | fr | 5.5 | gw | few, vf-c | |
| | Bt2 | 44-57+ | 10YR 5/6 | CL | 2, m, sbk | fr | 4.8 | | few, vf-c | 10% SS |
| | (few patchy clay films on ped faces and in pores in the Bt1 and common patchy clay films on ped faces and in pores on Bt2) | | | | | | | | | |

Appendix Table 2. Continued

| Site ID & Soil Age | Horizon | Depth (cm) | Mottling ¹ | Moist Color ² | Texture ³ | Structure ⁴ | Moist ⁵ Consistence | pH | Boundary ⁶ | Roots ⁷ | Rock ⁸ Fragments |
|--------------------------|------------|------------|-----------------------|--------------------------|----------------------|--|--------------------------------|-----|-----------------------|--------------------|-----------------------------|
| Native-02 (70% slope) | Oi | 0--5 | | Leaf and twig litter | | | | | | many, vf-c | 15 SS% SS |
| | A | 5--11 | | 10YR 3/3 | SL | 2, f, gr | vfr | 5.5 | cw | | |
| | BA | 11--26 | | 10YR 4/4 | SL | 1, f, sbk breaking to 1, f-m, gr | vfr | 5.2 | cw | many, vf-vc | 20% SS |
| | Bw1 | 26-38 | | 10YR 5/4 | SL | 1, m, sbk | fr | 5.2 | gw | com, f-vc | 20% SS |
| | Bw2 | 38-60+ | | 10YR 5/4 | SL | 1, m, sbk | fr | 4.7 | | com, f-vc | 25% |

| | | | | | | | | | | |
|--------------------------|--------------|---------|--------------------|----|------------|-----|-----|----|-------------|-----------|
| Native-03 (72% slope) | Oi | 0--5 | Leaf litter | | | | | | | SS |
| | Oe/Oa | 5--9 | | | | | | | | |
| | A | 9--17 | 10YR 3/2 | SL | 2, f-m, gr | vfr | 4.7 | cw | many, vf-m | 20% SS |
| | AB | 17--35 | 10YR 3/4, 10YR 5/6 | SL | 2, f-m, gr | vfr | 5.0 | cw | many, vf-vc | 35% SS |
| | Bw1 | 35--51 | 10YR 5/6 | SL | 1, m, sbk | fr | 5.0 | gw | many, vf-c | 35% SS |
| | Bw2 | 51--81+ | 7.5YR 4/6 | SL | 1, m, sbk | fr | 4.5 | | com, vf-c | 45% SS |

¹-f=fine, m=medium, c= coarse, com=common

²-Colors derived with Munsel color book

³-CL=clay loam, L=loam, LS= loamy sand, SCL=sandy clay loam, SICL=silty clay loam, SIL=silt loam, SL=sandy loam

⁴-0=structureless, 1=weak, 2=moderate

vf=very fine, f=fine, m=medium, c=coarse, t=thick

gr=granular, ma=massive, pl=platy, sbk=subangular blocky

⁵-fr=friable, fi=firm, L=loose, vfr=very friable

⁶-aw=abrupt wavy, cw=clear wavy, gw=gradual wavy, ab=abrupt broken, ci=clear irregular, gi=gradual irregular, as=abrupt smooth

⁷-com=common, vfew=very few, vf=very fine, f=fine, m=medium, c=coarse, vc=very coarse

⁸-C=carbolithic material, CO=conglomerate, MS=mudstone, SH=shale, SS=sandstone